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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,740	06/27/2003	Robert J. Delaney	1322/144	.7585

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JENKINS & WILSON, PA  
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DURHAM, NC 27707

EXAMINER

NGUYEN, QUYNH H

ART UNIT PAPER NUMBER

2642

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/607,740	DELANEY ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Quynh H Nguyen	2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/15/03 &amp; 11/3/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mijares et al. (U.S. Patent 6,683,881) in view of Kalmanek, Jr. et al. (U.S. Patent 6,324,279).

As to claims 1, 12, and 23, Mijares et al. teach a method for implementing messages of different ss7 protocol variations (Fig. 5 and col. 6, lines 66-67) comprising: receiving an SS7 message (col. 4, line 52); encapsulating the received SS7 message including an indicator (header) identifying the received SS7 message (col. 7, line 64 through col. 8, line 24); sending the SCCP message to a service control point 114 and using the indicator to process the SS7 message (col. 2, line 66 through col. 3, line 25).

Mijares et al. do not teach determining whether the received SS7 message requires redirection and identifying the SS7 protocol variation of the message.

Kalmanek et al. teach identifying the received SS7 message (col. 22, lines 41-43); sending a REDIRECT message to gateway controller to direct the call to

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a destination (col. 23, lines 9-11); encapsulating and coding the message (col. 22, lines 50-53).

A central feature of the SS7 Reference Model is the concept of layers; communications take place vertically as requests for services are passed from one layer to another. As the message is passed down through the protocol stack, each layer adds the information required by its protocols to the message in the form of a header (encapsulation). Thus, a message at a given layer is encapsulated for transporting the message passed to lower layer from the layer above it is desirable in order to accommodate legacy (old) and future (new) equipments.

As to claims 2, 13, and 30, Mijares et al. teach the SS7 message comprises an ISUP message (col. 7, lines 44-45).

As to claims 3, 14, and 31, Mijares et al. teach the SS7 message comprises an SCCP message (col. 7, lines 64-65).

As to claims 4, 15, and 26, Mijares et al. teach the SS7 protocol message is an ANSI message (col. 16, lines 63-65), and ITU SS7 format (col. 15, lines 58-59).

As to claims 5 and 28, Mijares et al. teach an indicator in the SCCP message includes the indicator in a calling party subsystem number field of the SCCP message (col. 11, lines 60-67 and Appendix B col. 19, line 19 and col. 26, lines 4-12).

As to claims 6 and 18, Mijares et al. teach sending the SCCP message to a service control point over an SS7 signaling link (col. 3, lines 1-6).

As to claims 7 and 19, Mijares et al. teach sending the SCCP message to a service control point over an IP signaling link (col. 4, lines 46-66).

Claims 8 and 20 are rejected for the same reasons as discussed above with respect to claim 1. Furthermore, Mijares et al. teach a method for redirecting SS7 protocol message performed at a signal transfer point (col. T. lines 45-46).

Claims 9 and 21 are rejected for the same reasons as discussed above with respect to claim 1. Furthermore, Mijares et al. teach a method for redirecting SS7 protocol message performed at an SS7/IP gateway (col. 4, lines 37-42).

As to claims 10, 11, 17 and 22, Mijares et al. teach performing global title translation on the SCCP message to produce a destination point code and sending the SCCP message to a service control point including sending the SCCP message to a service control point corresponding to the destination point code (col. 7, line 64 through col. 8, line 13).

As to claim 16, Mijares et al. do not teach selecting an outbound linkset for the message based on the identified protocol variation. Selecting an outbound linkset for the message based on the identified protocol variation is obvious and desirable in order to route the message to the appropriate destination.

As to claim 24, Mijares et al. teach examining at least one of originating point codes, destination point codes, and service indicators in the SS7 message to identify redirection candidates (col. 7, line 64 through col. 8, line 13).

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As to claim 25, Mijares et al. do not teach determining whether or not to allow SS7 messages into a network. It would be desirable to determine whether or not to allow SS7 messages into a network in order to forwards the SS7 message to its intended destination, and undesirable message would not be discarded.

As to claim 27, Mijares et al. teach basic structure of SS7 message. However, Mijares et al. do not teach inserting a protocol variation indicator in a predetermined field of each SCCP message. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the SS7 message in Mijares to include the protocol variation indicator so that when the SCP decodes the payload using the protocol type indicator and redirect the message to the appropriate SS7 network.

Claim 29 is rejected for the same reasons as discussed above with respect to claims 16 and 27.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pester, III (U.S. Patent 5,475,732) teaches common channeling signaling network maintenance and testing.
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh H. Nguyen whose telephone number

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is 703-305-5451. The examiner can normally be reached on Monday - Thursday from 6:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on (703) 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

qhn

Quynh H. Nguyen  
January 6, 2005

  
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